f) means to illuminate said article with a beam of the same wavelength as said laser beams so that light therefrom passes through or reflects off said objective and diffracts through or off said hologram and provides a corrected image of said article for viewing.

18. A method for image correction in a microscope comprising,

a) passing a laser beam through a beam splitter to form separate coherent beams 1 & 2,

b) directing beam 1 through a first pinhole to illuminate an objective and define an object beam,

c) directing beam 2 through a second pinhole to a collimating lens to define a reference beam and then into interference with said object beam in a recording medium to define a hologram,

d) removing said first pinhole before said objective and replacing said pinhole with an article to be viewed and

a) illuminating said article by a beam of the same wavelength as said coherent beams so that light therefrom passes through or reflects off said objective and through an imaging lens to diffract through or off said hologram to reconstruct the original reference beam but with article information retained, to correct for defects in said objective and to provide an accurate image for viewing.

21. A holographic image corrector comprising,

a microscope which has

a) an optical system having an objective

b) an array of pinholes mounted before said objective,

c) means for recording the characteristics of said objective by sending a first laser beam through said array and through said objective or reflecting said beam therefrom to form an object beam and

d) means for intersecting said object beam with a reference coherent laser beam in a recording medium to form a hologram of said objective,

e) means to replace said array with an article and

f) means to illuminate said article with a beam of the same wavelength as said laser beams so that light therefrom passes through or reflects off said objective and diffracts through or off said hologram and provides a corrected image of said article for viewing.